

FAST RECOVERY DIODE

ARF340

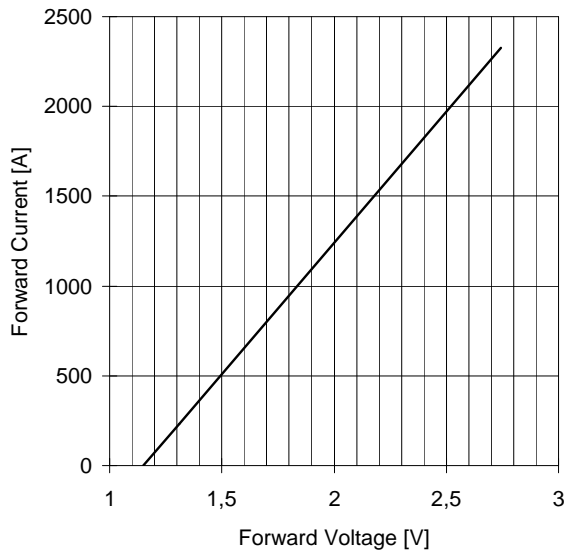
Repetitive voltage up to **2600 V**
 Mean forward current **775 A**
 Surge current **6.4 kA**

FINAL SPECIFICATION

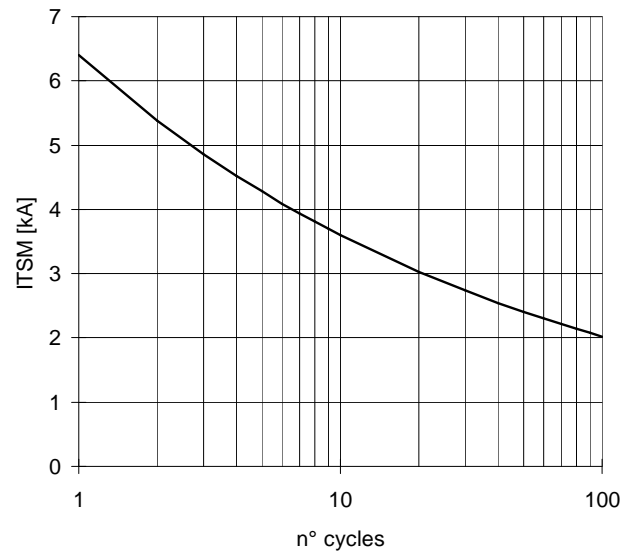
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Symbol	Characteristic	Conditions	T _j [°C]	Value	Unit
BLOCKING					
V _{RRM}	Repetitive peak reverse voltage		150	2600	V
V _{RSM}	Non-repetitive peak reverse voltage		150	2700	V
I _{RRM}	Repetitive peak reverse current	V=V _{RRM}	150	50	mA
CONDUCTING					
I _{F (AV)}	Mean forward current	180° sin ,50 Hz, Th=55°C, double side cooled		775	A
I _{F (AV)}	Mean forward current	180° square,50 Hz,Th=55°C,double side cooled		780	A
I _{FSM}	Surge forward current	Sine wave, 10 ms	150	6,4	kA
I ² t	I ² t	reapplied reverse voltage up to 50% VRSM		205 x1E3	A²s
V _{FM}	Forward voltage	Forward current : 1200 A	25	2,3	V
V _{F(TO)}	Threshold voltage		150	1,15	V
r _F	Forward slope resistance		150	0,685	mohm
SWITCHING					
t _{rr}	Reverse recovery time	I _F = 350 A di/dt= 80 A/µs VR = 100 V	150	4	µs
Q _{rr}	Reverse recovery charge			260	µC
I _{rr}	Peak reverse recovery current			140	A
s	Softness (s-factor), min			0,4	
V _{FR}	Peak forward recovery	di/dt= 400 A/µs	150	20	V
MOUNTING					
R _{th(j-h)}	Thermal impedance	Junction to heatsink, double side cooled		50	°C/kW
T _j	Operating junction temperature			-30 / 150	°C
F	Mounting force			8.0 / 9.0	kN
	Mass			85	g
ORDERING INFORMATION : ARF340 S 26 <div> standard specification <input type="checkbox"/> <input type="checkbox"/> VRRM/100 </div>					

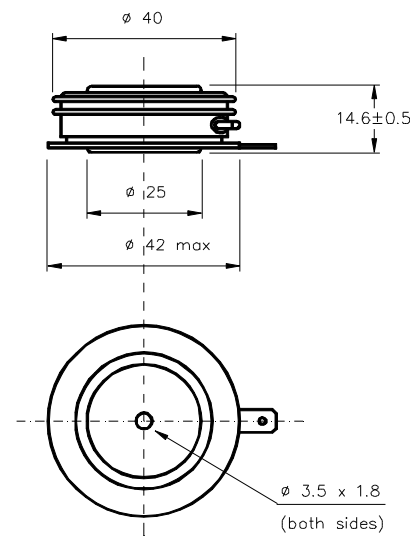
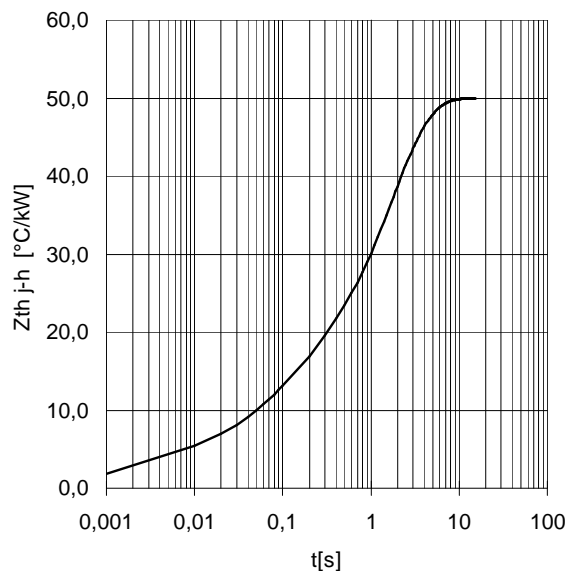
FORWARD CHARACTERISTIC
 $T_j = 150^\circ\text{C}$



SURGE CHARACTERISTIC
 $T_j = 150^\circ\text{C}$



TRANSIENT THERMAL IMPEDANCE
DOUBLE SIDE COOLED



Dimensions
in mm

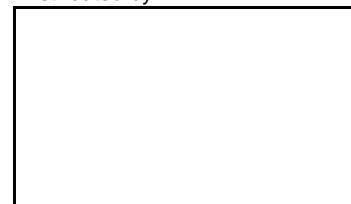


All the characteristics given in this data sheet are guaranteed only with uniform clamping force, cleaned and lubricated heatsink, surfaces with flatness $< .03 \text{ mm}$ and roughness $< 2 \mu\text{m}$.

In the interest of product improvement ANSALDO reserves the right to change any data given in this data sheet at any time without previous notice.

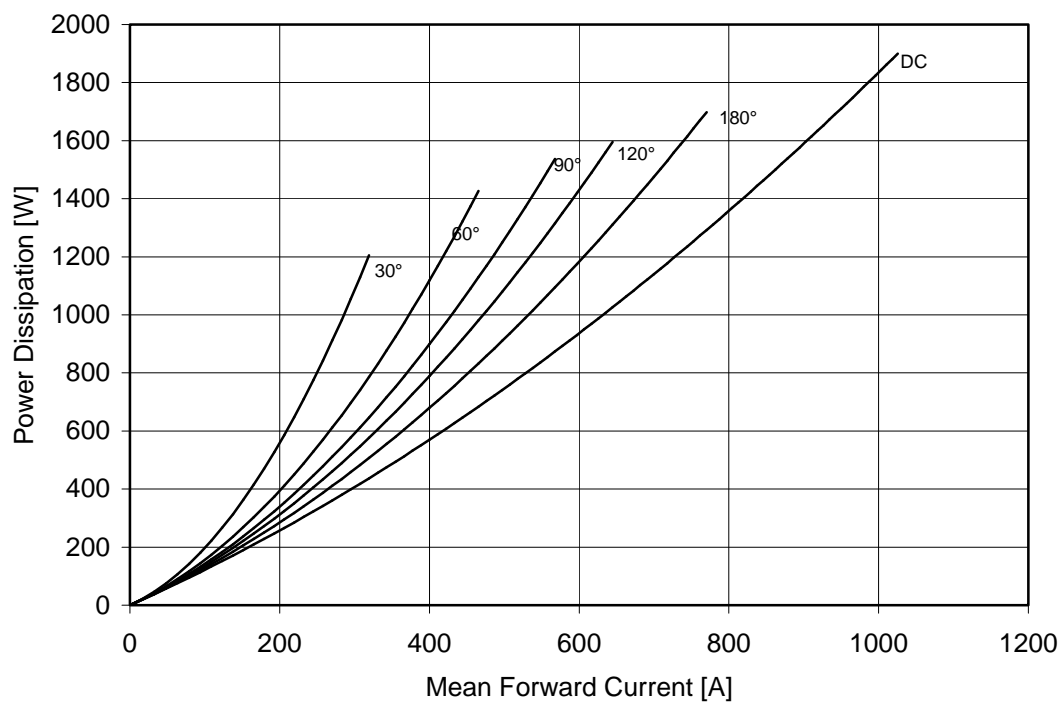
If not stated otherwise the maximum value of ratings (symbols over shaded background) and characteristics is reported.

Distributed by

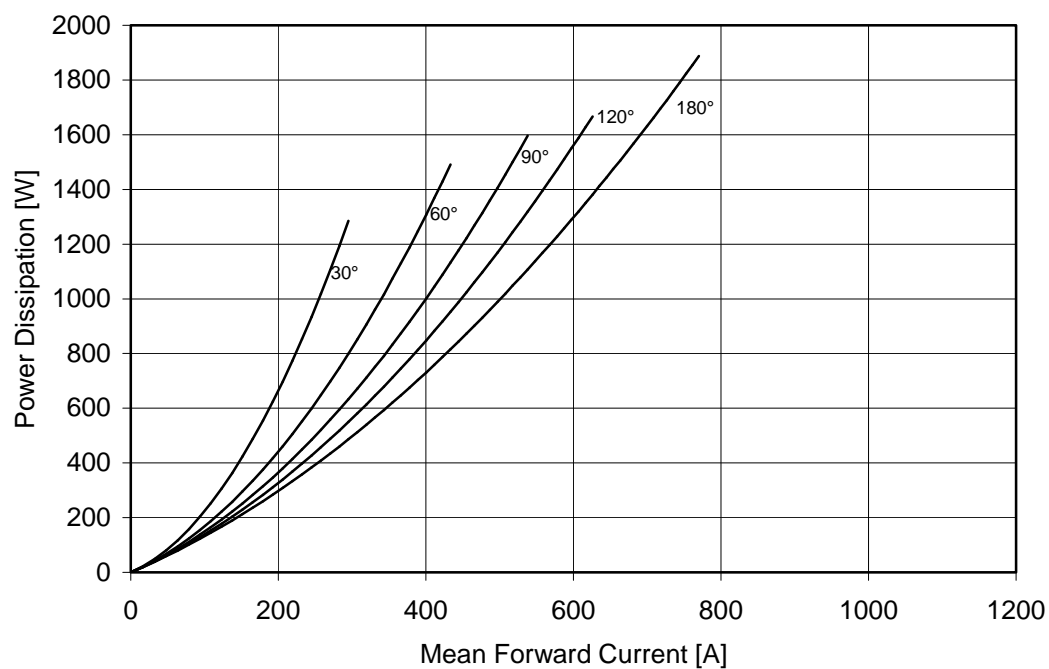


DISSIPATION CHARACTERISTICS

SQUARE WAVE

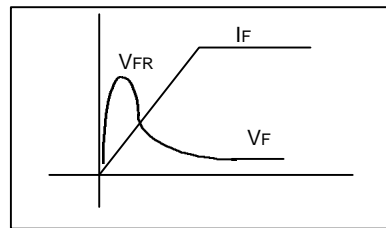
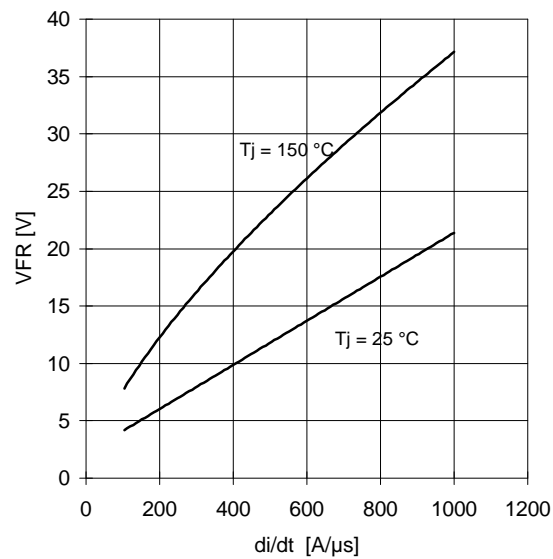


SINE WAVE



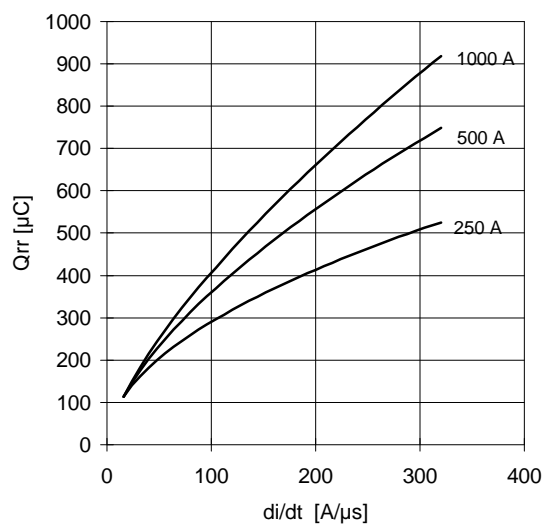
SWITCHING CHARACTERISTICS

FORWARD RECOVERY VOLTAGE



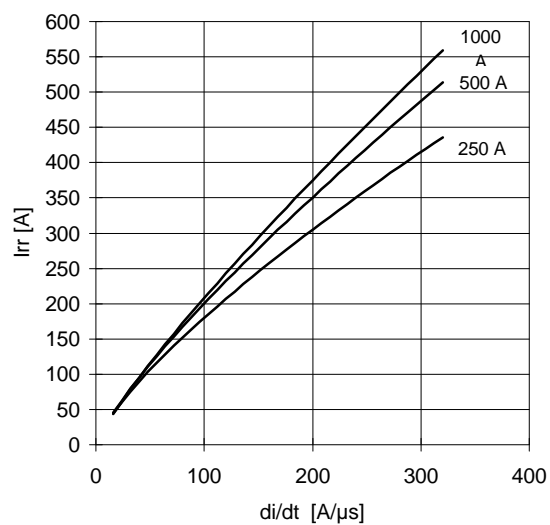
REVERSE RECOVERY CHARGE

Tj = 150 °C



REVERSE RECOVERY CURRENT

Tj = 150 °C



$$t_a = I_{rr} / (di/dt) \quad t_b = t_{rr} - t_a$$

$$\text{Softness (s factor)} \quad s = t_b / t_a$$

$$\text{Energy dissipation during recovery } E_r = V_r (Q_{rr} - I_{rr} t_a / 2)$$

